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#23

RAW SEQUENCE LISTING
PATENT APPLICATION: **US/09/747,029B**

DATE: 04/24/2003
TIME: 13:55:45

Input Set : **A:\INNS031.ST25.txt**
Output Set: **N:\CRF4\04242003\I747029B.raw**

```
 3 <110> APPLICANT: Union, Ann
 4        Moereels, Henri
 5        Meheus, Lydie
 7 <120> TITLE OF INVENTION: PEPTIDES DESIGNED FOR THE DIAGNOSIS AND TREATMENT OF
RHEUMATOID
 8        ARTHRITIS
10 <130> FILE REFERENCE: 11362.0031NPUS00 INNS:031
12 <140> CURRENT APPLICATION NUMBER: US 09/747,029B
13 <141> CURRENT FILING DATE: 2000-12-21
15 <150> PRIOR APPLICATION NUMBER: EP 00870195.5
16 <151> PRIOR FILING DATE: 2000-09-08
18 <150> PRIOR APPLICATION NUMBER: EP 99870280.7
19 <151> PRIOR FILING DATE: 1999-12-21
21 <160> NUMBER OF SEQ ID NOS: 24
23 <170> SOFTWARE: PatentIn version 3.2
25 <210> SEQ ID NO: 1
26 <211> LENGTH: 18
27 <212> TYPE: PRT
28 <213> ORGANISM: Artificial sequence
30 <220> FEATURE:
31 <223> OTHER INFORMATION: Synthetic Peptides
34 <220> FEATURE:
35 <221> NAME/KEY: MISC_FEATURE
36 <222> LOCATION: (1)..(3)
37 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
39 <220> FEATURE:
40 <221> NAME/KEY: MISC_FEATURE
41 <222> LOCATION: (4)..(4)
42 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met
44 <220> FEATURE:
45 <221> NAME/KEY: MISC_FEATURE
46 <222> LOCATION: (5)..(5)
47 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or
Trp
49 <220> FEATURE:
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51 <222> LOCATION: (6)..(6)
52 <223> OTHER INFORMATION: Xaa represents Gly
54 <220> FEATURE:
55 <221> NAME/KEY: MISC_FEATURE
56 <222> LOCATION: (7)..(7)
57 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or
Trp
59 <220> FEATURE:
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P.8

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60 <221> NAME/KEY: MISC_FEATURE
61 <222> LOCATION: (8)..(8)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/747,029B

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TIME: 13:55:45

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

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64 <220> FEATURE:
65 <221> NAME/KEY: MISC_FEATURE
66 <222> LOCATION: (10)..(10)
67 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Gly
69 <220> FEATURE:
70 <221> NAME/KEY: MISC_FEATURE
71 <222> LOCATION: (11)..(11)
72 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
74 <220> FEATURE:
75 <221> NAME/KEY: MISC_FEATURE
76 <222> LOCATION: (12)..(12)
77 <223> OTHER INFORMATION: Xaa represents Citrulline
79 <220> FEATURE:
80 <221> NAME/KEY: MISC_FEATURE
81 <222> LOCATION: (13)..(13)
82 <223> OTHER INFORMATION: Xaa represents Gly
84 <220> FEATURE:
85 <221> NAME/KEY: MISC_FEATURE
86 <222> LOCATION: (14)..(14)
87 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe or
Trp
89 <220> FEATURE:
90 <221> NAME/KEY: MISC_FEATURE
91 <222> LOCATION: (15)..(15)
92 <223> OTHER INFORMATION: Xaa represent Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn,
Tyr,
93        Phe or Trp
95 <220> FEATURE:
96 <221> NAME/KEY: MISC_FEATURE
97 <222> LOCATION: (17)..(17)
98 <223> OTHER INFORMATION: Xaa represents Gly
100 <220> FEATURE:
101 <221> NAME/KEY: MISC_FEATURE
102 <222> LOCATION: (18)..(18)
103 <223> OTHER INFORMATION: Xaa represents Tyr, His, Lys, Arg, Asp, Glu, Ser, Thr, Gln,
Asn,
104        Phe, Trp
106 <400> SEQUENCE: 1
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109 1          5                   10                  15
112 Xaa Xaa
116 <210> SEQ ID NO: 2
117 <211> LENGTH: 15
118 <212> TYPE: PRT
119 <213> ORGANISM: Artificial sequence
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122 <223> OTHER INFORMATION: Synthetic Peptides
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126 <221> NAME/KEY: MISC_FEATURE
127 <222> LOCATION: (1)..(1)
128 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met
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RAW SEQUENCE LISTING   DATE: 04/24/2003
PATENT APPLICATION: US/09/747,029B   TIME: 13:55:45

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

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131 <221> NAME/KEY: MISC_FEATURE
132 <222> LOCATION: (2)..(2)
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136 <221> NAME/KEY: MISC_FEATURE
137 <222> LOCATION: (3)..(3)
138 <223> OTHER INFORMATION: Xaa represents Gly
140 <220> FEATURE:
141 <221> NAME/KEY: MISC_FEATURE
142 <222> LOCATION: (4)..(4)
143 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
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146 <221> NAME/KEY: MISC_FEATURE
147 <222> LOCATION: (5)..(5)
148 <223> OTHER INFORMATION: Xaa represents Pro or Gly
150 <220> FEATURE:
151 <221> NAME/KEY: MISC_FEATURE
152 <222> LOCATION: (7)..(7)
153 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp or Gly
155 <220> FEATURE:
156 <221> NAME/KEY: MISC_FEATURE
157 <222> LOCATION: (8)..(8)
158 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
160 <220> FEATURE:
161 <221> NAME/KEY: MISC_FEATURE
162 <222> LOCATION: (9)..(9)
163 <223> OTHER INFORMATION: Xaa represents Citrulline
165 <220> FEATURE:
166 <221> NAME/KEY: MISC_FEATURE
167 <222> LOCATION: (10)..(10)
168 <223> OTHER INFORMATION: Xaa represents Gly
170 <220> FEATURE:
171 <221> NAME/KEY: MISC_FEATURE
172 <222> LOCATION: (11)..(11)
173 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
175 <220> FEATURE:
176 <221> NAME/KEY: MISC_FEATURE
177 <222> LOCATION: (12)..(12)
178 <223> OTHER INFORMATION: Xaa represents Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn,
Tyr,
179         Phe or Trp
181 <220> FEATURE:
182 <221> NAME/KEY: MISC_FEATURE
183 <222> LOCATION: (14)..(14)
184 <223> OTHER INFORMATION: Xaa represents Gly
186 <220> FEATURE:
187 <221> NAME/KEY: MISC_FEATURE
188 <222> LOCATION: (15)..(15)
189 <223> OTHER INFORMATION: Xaa represents Tyr, His, Lys, Arg, Asp, Glu, Ser, Thr, Gln,
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Asn,

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      190          Phe or Trp
      192 <400> SEQUENCE: 2
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      195 1               5                   10                  15
      198 <210> SEQ ID NO: 3
      199 <211> LENGTH: 14
      200 <212> TYPE: PRT
      201 <213> ORGANISM: Artificial sequence
      203 <220> FEATURE:
      204 <223> OTHER INFORMATION: Synthetic Peptides
      207 <220> FEATURE:
      208 <221> NAME/KEY: MISC_FEATURE
      209 <222> LOCATION: (1)..(1)
      210 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
      212 <220> FEATURE:
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      214 <222> LOCATION: (2)..(2)
      215 <223> OTHER INFORMATION: Xaa represents Gly
      217 <220> FEATURE:
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      219 <222> LOCATION: (3)..(3)
      220 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
      222 <220> FEATURE:
      223 <221> NAME/KEY: MISC_FEATURE
      224 <222> LOCATION: (4)..(4)
      225 <223> OTHER INFORMATION: Xaa represents Pro or Gly
      227 <220> FEATURE:
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      229 <222> LOCATION: (6)..(6)
      230 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp or Gly
      232 <220> FEATURE:
      233 <221> NAME/KEY: MISC_FEATURE
      234 <222> LOCATION: (7)..(7)
      235 <223> OTHER INFORMATION: Xaa represents Citrulline, Gly, Ser or Thr
      237 <220> FEATURE:
      238 <221> NAME/KEY: MISC_FEATURE
      239 <222> LOCATION: (8)..(8)
      240 <223> OTHER INFORMATION: Xaa represents Citrulline
      242 <220> FEATURE:
      243 <221> NAME/KEY: MISC_FEATURE
      244 <222> LOCATION: (9)..(9)
      245 <223> OTHER INFORMATION: Xaa represents Gly
      247 <220> FEATURE:
      248 <221> NAME/KEY: MISC_FEATURE
      249 <222> LOCATION: (10)..(10)
      250 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
      252 <220> FEATURE:
      253 <221> NAME/KEY: MISC_FEATURE
      254 <222> LOCATION: (11)..(11)
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RAW SEQUENCE LISTING   DATE: 04/24/2003
PATENT APPLICATION: US/09/747,029B   TIME: 13:55:45

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

    255 <223> OTHER INFORMATION: Xaa represents Arg, Lys, His, Asp, Glu, Ser, Thr, Gln, Asn,
Tyr,
    256   Phe or Trp
    258 <220> FEATURE:
    259 <221> NAME/KEY: MISC_FEATURE
    260 <222> LOCATION: (13)..(13)
    261 <223> OTHER INFORMATION: Xaa represents Gly
    263 <220> FEATURE:
    264 <221> NAME/KEY: MISC_FEATURE
    265 <222> LOCATION: (14)..(14)
    266 <223> OTHER INFORMATION: Xaa represents Tyr, His, Lys, Arg, Asp, Glu, Ser, Thr, Gln,
Asn,
    267   Phe or Trp
    269 <400> SEQUENCE: 3
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    272 1   5   10
    275 <210> SEQ ID NO: 4
    276 <211> LENGTH: 18
    277 <212> TYPE: PRT
    278 <213> ORGANISM: Artificial sequence
    280 <220> FEATURE:
    281 <223> OTHER INFORMATION: Synthetic Peptides
    284 <220> FEATURE:
    285 <221> NAME/KEY: MISC_FEATURE
    286 <222> LOCATION: (1)..(1)
    287 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
    289 <220> FEATURE:
    290 <221> NAME/KEY: MISC_FEATURE
    291 <222> LOCATION: (2)..(2)
    292 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
    294 <220> FEATURE:
    295 <221> NAME/KEY: MISC_FEATURE
    296 <222> LOCATION: (3)..(3)
    297 <223> OTHER INFORMATION: Xaa represents Ser, Thr, Asp, Glu, Asn, Gln, His, Lys or Arg
    299 <220> FEATURE:
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    301 <222> LOCATION: (4)..(4)
    302 <223> OTHER INFORMATION: Xaa represents Ile, Leu, Val, Ala or Met
    304 <220> FEATURE:
    305 <221> NAME/KEY: MISC_FEATURE
    306 <222> LOCATION: (5)..(5)
    307 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
    309 <220> FEATURE:
    310 <221> NAME/KEY: MISC_FEATURE
    311 <222> LOCATION: (6)..(6)
    312 <223> OTHER INFORMATION: Xaa represents Gly
    314 <220> FEATURE:
    315 <221> NAME/KEY: MISC_FEATURE
    316 <222> LOCATION: (7)..(7)
    317 <223> OTHER INFORMATION: Xaa represents His, Lys, Arg, Asp, Glu, Ser, Thr, Tyr, Phe
or Trp
    319 <220> FEATURE:

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 04/24/2003
PATENT APPLICATION: US/09/747,029B   TIME: 13:55:46

Input Set : A:\INNS031.ST25.txt
Output Set: N:\CRF4\04242003\I747029B.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,2,3,4,5,6,7,8,10,11,12,13,14,15,17,18
Seq#:2; Xaa Pos. 1,2,3,4,5,7,8,9,10,11,12,14,15
Seq#:3; Xaa Pos. 1,2,3,4,6,7,8,9,10,11,13,14
Seq#:4; Xaa Pos. 1,2,3,4,5,6,7,8,10,11,12,13,15,16,17,18
Seq#:5; Xaa Pos. 1,2,3,4,5,6,8,9,10,11,13,14,15,16
Seq#:6; Xaa Pos. 1,2,3,4,6,7,8,9,11,12,13,14
Seq#:7; Xaa Pos. 11,12
Seq#:8; Xaa Pos. 12
Seq#:9; Xaa Pos. 11,12
Seq#:10; Xaa Pos. 11,12
Seq#:11; Xaa Pos. 11,12
Seq#:12; Xaa Pos. 11,12
Seq#:13; Xaa Pos. 7,8
Seq#:14; Xaa Pos. 7,8
Seq#:15; Xaa Pos. 7,8
Seq#:16; Xaa Pos. 8
Seq#:17; Xaa Pos. 12
Seq#:18; Xaa Pos. 8
Seq#:19; Xaa Pos. 8
Seq#:20; Xaa Pos. 8
Seq#:21; Xaa Pos. 8
Seq#:22; Xaa Pos. 10
Seq#:23; Xaa Pos. 2,3,4,5,6,7
Seq#:24; Xaa Pos. 2,3,4,5

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:7